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ABSTRACT

A taxonomy and framework for evaluating the quality of journals in higher education are proposed in this paper. The significance of acquiring and disseminating professional information to faculty and administrators in higher education is discussed, and it is noted that the journals in which a faculty member publishes are sometimes used as critical factors in promotion and tenure decisions. Following a review of the literature about hierarchies in higher education publishing, a model is presented which offers five constructs that affect journal quality: (1) perception, which gauges the opinions of selected peers about a journal's quality; (2) citations, which measure the number of times a work is cited in subsequent research in the area; (3) usage (publishing), a measure that shows the number of times fellow educators publish in that journal; (4) usage (readership), identifying how often the source is referred to by peers; and (5) factual information, which can be obtained from reference publications about journals. A mathematical model encompassing flexibility for faculty and academic departments with diverse needs is also introduced to help evaluate journals using the proposed constructs. The combination of the constructs and method are based on the fact that the strength of one can compensate for the limitations of the other. A figure illustrates the concept. (14 references) (SD)

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Faculty Usage of Higher Education Journals: Toward a Taxonomy

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Faculty Usage of Higher Education Journals: Toward a Taxonomy

Kai S. Koong and Harold A. Smith

Need for the Study

Academic journals are important sources for acquiring and disseminating professional information to faculty and administrators in higher education. Journals are especially important media for the publication of the findings of their work to add to the body of knowledge. Most higher education institutions consider publications produced as critical factors in promotion and tenure decisions. However, since many universities have no explicit quantitative or qualitative publication criteria for promotion or tenure decisions (Gaston, et al., 1975), the identification of a body of commonly agreed upon journals in higher education could be valuable to provide some direction for faculty and administrators involved in tenure and promotion decisions. There are a number of other important reasons for identifying the list of journals in an academic field. For example:

1. The prestige of a department and the university is often based on the type of journals that publish its faculty's research. A department needs to be conscious of the journals which are considered prestigious in a particular discipline, as this can affect the department's success in recruiting quality doctoral students and faculty.

2. Journal editors also need to know the perceptions of its contributers and readers as to the contribution of its publications to the discipline. Such information provides valuable feedback to editors as to the impact their publication has in the discipline.

3. Faculty members are affected the most because the "publish or perish" syndrome requires more than getting one's writing in print. The long review and publication lead times

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for a manuscript to reach print make charting a publication strategy a basic researcher's goal if he or she desires to gain a reputation in an area of study.

Review of the Literature

Higher education is a broad and diverse field, with increasing numbers of professional publications produced. A number of researchers have identified journal publishing hierarchies. For example, Doke & Luke (1987) found journal publishing hierarchies in perceptions of faculty responding to their survey. Perception was used as the measure of quality in this study. However, possible biases in opinions therefore limit the conclusions derived from the data. Therefore, this method is flawed because the results are based on opinions instead of empirical data. The literature shows several others have responded to the problem (Davis, 1980; Hamilton & Ives, 1980; Dezee, 1980; Bayer, 1983; Nelson, et al., 1983; van Over & Ryan; Vogel & Weterbe, 1984; Gagnon, 1986; Harrington, et al., 1989; King & Trower, 1989). The methods used in some of these pioneering investigations have included citation analysis, which measures the impact a journal has had within a field by counting the frequency of its appearance in citations by other papers/journals in that field. The assumption is that the quality of a paper is correlated with the number of times it is cited in subsequent research. Major problems with this methodology lie in the selection of journals, the number of articles in it, the circulation and indexing of the journal, and distortions caused by classic articles.

The respondents in those earlier studies were limited to a list of journals selected by the respective researchers, thus possibly introducing biases into the findings. This could be a particularly serious limitation in a field as broad as higher education. Such problems and limitations of journal assessment methods were found to be true in the field of computer information systems. Koong and Weistroffer (1989) conducted a survey using an open-ended questionnaire and made some interesting observations. For example:

1. Perception is a good predictor of reading habits, but a poor predictor of publishing habits. Where a researcher publishes does not necessarily reflect his or her source for identifying reading material.

2. Certain journals rank high for acquiring knowledge but not for disseminating knowledge. Apparently, trade journals are important sources of information acquisition.

3. There are certain key journals for a particular discipline irrespective of methods used for assessing their quality. In the computer information systems field, the two unchallenged high ranking journals are *Management Information Systems Quarterly* and *Communications of Association of Computing Machinery*.

The profile results of Koong and Weistroffer's study supported the notion that the survey respondents were from a normally distributed population and were representative of the involvement of a typical faculty member in an American Association of Colleges of Schools of Business accredited university. A study in progress on higher education journals is expected to have similar findings.

These studies have important implications for researchers in higher education. The major objective of this paper is to propose a framework to help identify journals that are relevant for educators in the field of higher education. A secondary objective is to suggest methods that can help educators perform a robust evaluation of the journals publishing manuscripts in the area of higher education.

This paper does not refute or make obsolete earlier research, but does point out a way of augmenting and extending earlier findings on professional journal usage. Faculty should know which journals are widely respected for disseminating or obtaining information in order to target their own publication efforts. Department administrators should know which journals are respected for obtaining knowledge in order to evaluate faculty publishing success. Furthermore, identification of the journals used in any field may be crucial to the efficient allocation of limited library resources. Therefore, faculty and administrators in higher education, as well as librarians, are likely to benefit from results of this methodological extension.

Toward a Taxonomy

Various assessment methods have been used to measure journal quality. Each method has its advantages and disadvantages. One method cannot determine the total contribution or impact a journal has in its discipline. However, an eclectic assessment is possible by combining the strengths of each method. Such a methodology can be used to assess the total quality of a journal. A taxonomy of such a method is proposed in Figure 1.

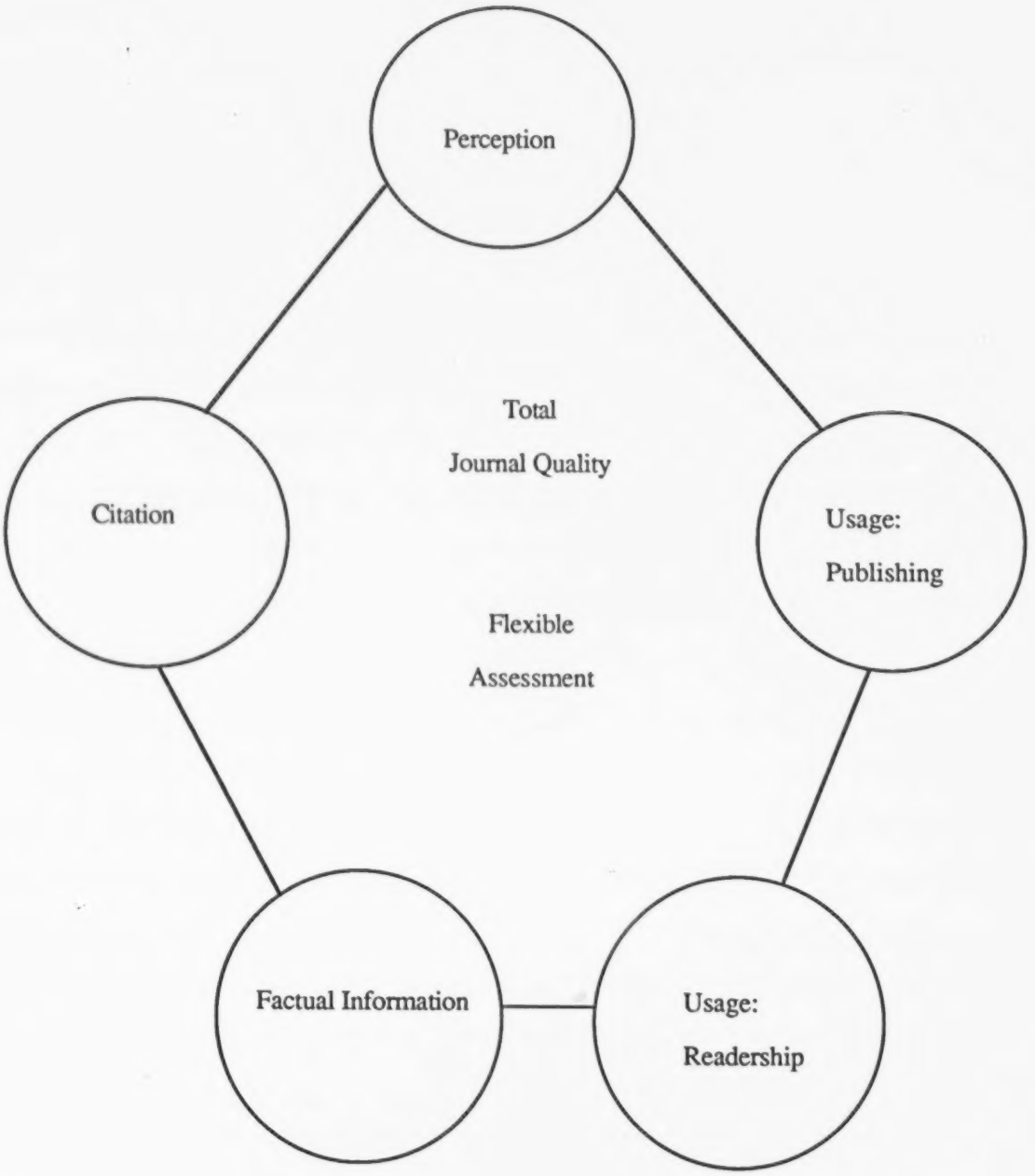
As indicated in Figure 1, the proposed conceptual framework for assessing journal quality will consist of five constructs. Each construct can assess the impact of a journal from a different dimension. Furthermore, these five constructs can enable researchers to evaluate a journal and develop their publishing strategy to fit their respective needs. For example:

Perception: This construct measures the opinion of selected peers about the quality of a journal. In most cases, the people who are included in this type of a measure are leaders in the field. This measure will be useful to senior faculty or those in universities who value peer evaluations of their performance.

Citation: This method measures the number of times a work is cited in subsequent research in the area. This measure may be valuable for leading educators in the field in measuring the actual need or value of the research attempted.

Usage - Publishing: This construct measures the usefulness of a journal as gauged by the number of times fellow educators use the journal for disseminating knowledge. Fresh doctorates may find this measure helpful because it is an indicator that one is publishing in the "right" journals.

Usage - Readership: This construct also measures the usefulness of a journal. However, the impact is gauged by the number of times it is used by peers for acquiring knowledge. The interesting phenomenon about this measure is that the manuscripts are written primarily for practitioners rather than academicians. However, for faculty of universities that emphasize a more "hands on" approach, this can be a valuable method.


Perception
Total
Journal Quality
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Usage:
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Factual Information
Usage:
Readership

Factual information: This measure uses key variables that are publicly available. The Cabell Directory is one such publication that contains information on journals such as size of circulation, lead times, acceptance rates, and targeted population. This information can be a valuable indicator of the impact a journal has in the field.

In addition to the five constructs, it is important to note that **flexibility of assessment** should be introduced into the taxonomy. Different universities and faculties do not place equal value on the constructs. One such proposal is to use a multi-criteria approach toward building the index for evaluating journals. As with all criteria decision-making models, the weights can be tailored to the needs of the departments themselves or an individual faculty member. An example of such a model is presented below:

$$I_j = W_1C_1X_1 + W_2C_2X_2 + W_3C_3X_3 + W_4C_4X_4 + W_5C_5X_5 + E_j$$

where:

I_j -- Index

W_i -- Weights of variables/assessment methods

C_i -- Coefficient of variables/may be positive or negative

X_i -- Assessment methods (perception, citation, usefulness - publishing, usefulness - readership, and factual information respectively)

E_j -- Randomized error of the model

and $W_i \geq \emptyset$

$I_j \leq 1$ and $I_j \geq \emptyset$

$\sum_{i=1}^{5} W_i = 1$

A department can easily control the weights and have different models for evaluating faculty publishing for different ranks. For example, using the model above, junior faculty can be assigned higher weights on the latter variables because the larger quantity produced (at the expense of

perceived quality) can help them gain tenure more feasibly. On the other hand, for more senior faculty, the weights of the earlier variables can be higher because these faculty members have an established record and should concentrate on building a higher perceived reputation in the field to attain promotion requirements for higher ranks.

Conclusion

The objective of this paper is to present a taxonomy and framework for evaluating journal quality in higher education. A model presenting five constructs that affect journal quality was presented. A mathematical model encompassing flexibility for faculty and departments with diverse needs was also presented to help evaluate journals using the constructs proposed. The combination of constructs and method are based on the fact that the strength of one can compensate for the limitations of another. Such an eclectic method, hopefully, may provide for a more rational and empirical method to evaluate faculty publishing success.

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